

F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MD			

Intersection Operation

MD 118 (Relocated) and MD 117 (Relocated) - This intersection is to operate in a semi-traffic-actuated mode with MD 118 approaches running concurrently and the MD 117 approaches running concurrently. Exclusive left-turn phasing will be provided for northbound and southbound MD 118. Concurrent exclusive/permissive left-turn phasing will be provided for east and westbound MD 117.

An eight (8) phase, full-traffic-actuated, solid state digital controller with six (6) two-channel loop detector amplifiers with time delay output and all necessary equipment for a Montgomery County signal. The controller is to operate in a Nema eight (8) phase, semi-traffic-actuated mode. MD 118 is assumed to run in a north-south orientation.

This intersection will be interconnected with the Montgomery County computerized signal system.

Special Notes

- The Contractor shall trench all conduits prior to roadway pavement unless noted otherwise on the plans or in the specifications.
- Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 105.00, 105.01, 105.02, 105.309, 105.311.
- The following contact persons for SHA Office of Traffic and District 3 are as follows:

Mr. Paul Armstrong
District Engineer (Acting)
Phone# (301) 513-7311

Mr. Maj Shakh
Asst. District Engineer - Traffic
Phone# (301) 513-7359

Mr. Carter Wilson
Asst. District Engineer
Phone # (301) 513-7305

Mr. Francis Lauer
Asst. District Engineer - Utilities
Phone # (301) 513 - 7351

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone # (410) 787-7630

- The Signal Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate signal terminals and shall properly label each cable.
- The Signal Contractor is to route all proposed signal cables to the base of the existing cabinet and properly label each cable. MCDOT forces shall be responsible for the internal wiring of the cabinet.
- The Signal Contractor is to run interconnect cables to the base of each cabinet and properly tag all cables. MCDOT forces shall be responsible for performing all splices and connections of the interconnect cables.
- Interconnect shall be maintained to all traffic signals at all times.

CONSTRUCTION DETAILS

- Install 12"x32" steel strain pole with pedestrian signals, pedestrian pushbutton and sign, 250 watt HPS lamp, luminaire and 20 ft lighting arm (Note: 1-3", 90 degree PVC schedule 40 conduit bend.)
- Install handhole.
- Install 6' x 6' loop detector encased in 1/4" flexible tubing (3 turns).
- Install 1" liquid tight, flexible conduit sleeve for detector wire.
- Install 6' x 30' loop detector encased in 1/4" flexible tubing, (2-4-2) quadrupole type.
- Install 3" schedule 40 polyvinyl chloride electrical conduit (trenched).
- Install 4" schedule 80 PVC electrical conduit (trenched) prior to installation of pavement.
- Install 4" schedule 40 polyvinyl chloride electrical conduit (trenched).
- Install base-mounted cabinet, controller, with all necessary equipment as shown. (Note: 1-2" sch 80 PVC 90-degree conduit bend (for power service), 2-4" sch 40 polyvinyl chloride, 90-degree conduit bends, and 1-3" sch 40 polyvinyl chloride, 90-degree conduit bend).
- Install 3/8" span wire, signals and signs as shown, signs and five-section signal heads are to be tethered using 1/4" steel span tether wire.
- Install 12" x 32' steel strain pole with 250 watt HPS lamp and luminaire, 20 ft lighting arm, pedestrian signals pedestrian pushbutton and sign. (Note: one-3", sch 40 PVC 90-degree conduit bend and 4-2 1/4 in. x 96 in. anchor bolts).
- Install 24" white preformed pavement marking for stop line.

- Install handhole (alternate brick).

- Install preformed pavement marking arrow.

- Install 10" breakaway pedestal pole with pedestrian signals, pedestrian pushbutton and sign. (Note: 4-1 in. x 40 in. anchor bolts and 1 - 4 in. sch 80 PVC conduit bend)

EQUIPMENT LISTS

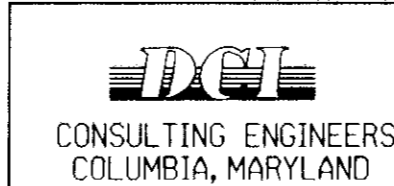
A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
6 EA		814	12 inch 1-way, 3-section (R, Y, G) signal head - span mount.
4 EA		814	12 inch 1-way, 3-section (RA, YA, GA) signal head - span mount.
2 EA		814	12 inch 1-way, 5-section (R,Y,YA,G,GA) signal head - span mount.
4 EA		817	Pushbutton and sign.
2 EA		814	Combination 1-way 5-section 12" (YA, GA) and 8" (R,Y,G) signal head - span mount.
3 EA		814	12 inch 2-way, 2-section pedestrian signal heads - pole mount.
1 EA		814	12 inch 2-way, 2-section pedestrian signal heads - pedestal mount.
1 EA		816	Eight-phase, (fully actuated), controller and cabinet with all necessary equipment for Montgomery County
6 EA		817	Two-channel loop detector amplifier with time delay output.
157 SF		813	Sheet aluminum signs - consisting of:
2 EA			R3-5L (30" X 36")
2 EA			D3-2 dual face (VAR x 16") "Germantown RD." sign.
2 EA			D3-2 dual face (VAR x 16") "Clopper RD" sign.
2 EA			R10-12 (36" x 42") left turn yield on green ball.
8 EA			W3-3 new (36" x 36") sign.

B. Equipment to be furnished and/or installed by the Contractor.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
	21.3 CY	801	Concrete for signal foundations
	5 EA	804	Ground rod (3/4" solid copper x 10 LF)
	4 EA	882	12" x 32' steel strain pole 2 - ply (Note: Install 2 1/4" x 96" anchor bolts.)
	1 EA	882	10 foot breakaway pedestal pole (Note: 4 - 1"x40" anchor bolts).
	120 LF	805	1" liquid tight flexible non-metallic conduit for detector/sleeve.
	175 LF	805	3" schedule 40 rigid PVC conduit trench.
	1 EA	807	Control and distribution.
	80 LF	805	3" schedule 80 rigid PVC conduit trench.
	585 LF	805	4" schedule 80 rigid PVC conduit trench.
	150 LF	805	4" schedule 40 rigid PVC conduit trench.
	72 SF	813	Install ground mounted signs.
	85 SF	813	Install overhead sign.
	120 LF		Wooden sign supports (4" X4")
	3 EA	814	Install pedestrian signal head - pole mount
	1 EA	814	Install pedestrian signal head - pedestal mount
	14 EA	814	Install signal head - span mount
	2835 LF	810	Loop wire encased in flexible tubing (No. 14 A.W.G.)
	2295 LF	810	electrical cable 2 conductor (aluminum shielded).
	1 EA	816	eight phase (fully actuated) controller and cabinet - base mount.
	1030 LF	810	electrical cable 2-conductor (No. 14 A.W.G.)
	1105 LF	810	electrical cable 5-conductor (No. 14 A.W.G.)
	2550 LF	810	electrical cable 7-conductor (No. 14 A.W.G.)
	1100 LF	815	Sawcut for signal loop detector.
	12 EA	811	Handhole
	1 EA	811	Handhole (alternate brick)
	630 LF	819	steel span wire 3/8 inch diameter.
	630 LF	819	steel span wire. 1/4 inch diameter.
	4 EA	814	250 watt high pressure sodium lamp and luminaire
	4 EA	812	20 ft lighting arm on signal structure.
	1000 LF	810	2 conductor tray cable (No. 12 AWG)
	60 LF	810	No. 6 AWG standard bare copper ground wire.

TRAFFIC CONTROL PLAN - STAGE II / PHASE II



REVISIONS	APPROVALS
	CHEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION			
ORIGINAL DRAWN BY	R. CICCHINI	MD 118 REL AT MD 117 REL GENERAL INFORMATION SHEET 2 OF 2	
DES. BY	R. MILSTEAD		
CHK. BY	YD		
DATE:	12/95	F.A.P. NO.	TS/FILE NO.
SCALE:		S.H.A. NO.	2473X1-G1
		LOG MILE # 150.11707.64	COUNTY: MONTGOMERY
		SHEET NO. OF	